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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,795	09/27/2005	Shinkichi Ikeda	MAT-8755US	6232
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			<div>EXAMINER</div> <div>LI, GUANG W</div>	
			<div>ART UNIT</div> <div>2109</div>	<div>.PAPER NUMBER</div>
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/551,795	IKEDA, SHINKICHI	
	Examiner	Art Unit	
	Guang Li	2109	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>09/27/2005; 08/23/2006</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

1. The instant application having Application No. 10/551795 has a total of 16 claims pending in the application; there are 3 independent claims and 13 dependent claims, all of which are ready for examination by the examiner.

Oath/Declaration

2. The applicant's oath/declaration has been reviewed by the examiner and is found to conform to the requirements prescribed in **37 C.F.R. 1.63**.

Priority

3. As required by **M.P.E.P. 201.14(c)**, acknowledgement is made of applicant's claim for priority based on applications filed on 10/17/2003 (JAPAN 2003-357724) and 10/13/2004 (JAPAN 2004-298721).

Drawings

4. The drawings are objected to because the unlabeled rectangular box(es) shown in the drawings (Fig.1 and Fig.13) should be provided with descriptive text labels.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency.

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Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 61.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Information Disclosure Statement

5. As required by **M.P.E.P. 609(C)**, the applicant's submissions of the Information Disclosure Statements dated 09/27/2005 and 08/23/2006 are acknowledged by the examiner and the cited references have been considered in the examination of the claims now pending. As required by **M.P.E.P 609 C(2)**, a copy of the PTOL-1449 initialed.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claim 1-12 and 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Kimura et al. (US 2002/0133595 A1).

8. Regarding claim 1, Kumaki teaches a home link setting method by a home gateway device having a home agent function for accommodating terminals including

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mobile terminals (**Home network as its home agent function includes: a home gateway, a mobile node see ¶[0007]**), comprising:

a step of receiving network information for setting a home network through a communication interface connected to an Internet network (**a communication interface for communicating with devices included in home network and with ISP see ¶[0011-0012]**);

a home link selecting step of selecting a home link from among links connecting to communication interfaces other than the communication interface which has received the network information (**Location Management Table which is created based on a location registrant request message from mobile node see ¶[0011]**); and

a home agent setting step of executing an internal setting so as cause to the terminal on the selected link to conduct the home agent function (**home agent function "This routing function of home gateway 110 by which data is forwarded via a tunnel to foreign router 300 of a foreign network on which the mobile node 160 is now located is called a home agent function see ¶[0028]**).

9. Regarding claim 2, Kumaki teaches the home link setting method according to claim 1,

wherein in said home link selecting step, a link to which a mobile terminal complying with a mobile IP protocol is connected is designated as the home link (**mobile IP allows the mobile terminal to communicate even when it has moved to a network other than the predetermined network see ¶[0005]**).

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10. Regarding claim 3, Kumaki teaches the home link setting method according to claim 2, further comprising:

a step of acquiring home agent information stored in the mobile terminal connected to the link connecting to the communication interface **(The control circuit receives data and information indicating the mobile terminal as a destination of the data, and controls, based on the received information indicating the mobile terminal as the destination of the data and the information stored in the location management table, such that the communication circuit sends the received data to the mobile terminal as the destination thereof see ¶[0038]),**

wherein in said home agent setting step, when the home agent information meets conditions specified by the network information, the internal setting is executed using the acquired home agent information, whereas when the home agent information does not meet the conditions, the internal setting is executed using home agent information generated based on the network information **(the process for location registration Fig.19 step S1000-S1004; ¶[0084-0087]).**

11. Regarding claim 4, Kumaki teaches the home link setting method according to claim 3,

wherein in said home agent setting step, when the internal setting is executed using home agent information which is newly generated, notification of the new home agent information is given to all mobile terminals on the home link **(agent advertisement messages are transmitted (multicast or broadcast) periodically by agent advertisement transmission circuit see ¶[0020]).**

12. Regarding claim 5, Kumaki teaches the home link setting method according to claim 3, further comprising:

a step of acquiring information concerning a mobile router function stored in the mobile terminal, wherein when the mobile terminal performs a mobile router operation, a setting of the home agent corresponding to the mobile router is executed (**mobile node includes a control unit, the storage circuit 168 for storing various kinds of data including location information data and wireless communication circuit for wireless communication with access point 150 see ¶[0014]**).

13. Regarding claim 6, Kumaki teaches a home gateway device (**a system communicating data with a mobile node see abstract**), comprising:

plural communication interfaces connected to an Internet network or a local link; a network information processing unit receiving network information for setting a home network through said communication interfaces (**home gateway having routing function that forward packets between routers and one network may be set for plurality of mobile nodes as their home network see ¶[0006-0007]**);

an interface setting unit selecting one of the links connecting to communication interfaces other than the communication interface which has received the network information to be a home link (**Location Management Table which is created based on a location registrant request message from mobile node see ¶[0011]**);

a home agent processing unit performing a home agent function with respect to terminals on the home link (**home gateway control unit for control of home gateway see ¶[0007]; ¶[0011]**) and

a home agent setting unit executing settings in said home agent processing unit so as to cause with respect to the terminal on the link designated as the home link by said interface setting unit to conduct the home agent function **(home agent function “This routing function of home gateway 110 by which data is forwarded via a tunnel to foreign router 300 of a foreign network on which the mobile node 160 is now located is called a home agent function see ¶[0028]).**

14. Regarding claim 7, Kumaki teaches the home gateway device according to claim 6,

wherein said interface setting unit transmits a verification message **(upon receipt of this agent advertisement message, mobile node 160 compares the home agent address stored in storage unit 168 of mobile node 160 with the address included in the received agent advertisement message to determine whether it is located on its home network or on a foreign network see ¶[0018])** for verifying the existence of mobile terminal complying with a mobile IP, and designates the link connecting to the communication interface which has received a message responding to the verification message notifying the existence of the mobile terminal, as the home link **(from the location registration request message to verify existence of mobile terminal with a IP “The location registration request message includes: a communication header; an address of ISP 1200 as a destination address; an IP address of mobile node 160 as a source address; and an address of home gateway 110 or foreign router 300 that the mobile node received” see ¶[0080]).**

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15. Regarding claim 8, Kumaki teaches the home gateway device according to claim 7,

wherein said interface setting unit acquires home agent information stored in the mobile terminal connected to the home link **(The control circuit receives data and information indicating the mobile terminal as a destination of the data, and controls, based on the received information indicating the mobile terminal as the destination of the data and the information stored in the location management table, such that the communication circuit sends the received data to the mobile terminal as the destination thereof see ¶[0038]), and**

wherein when the home agent information meets conditions specified by the network information, said home agent setting unit performs a setting of the home agent function using the acquired home agent information, whereas when the home agent information does not meet the conditions, said interface setting unit generates home agent information based on the network information and said home agent setting unit performs a setting of said home agent processing unit using the generated home agent information **(the process for location registration and how to obtain care of address (home agent information) see Fig.19; ¶[0084-0090]).**

16. Regarding claim 9, Kumaki teaches the home gateway device according to claim 8, wherein when said interface setting unit newly generates the home agent information, said home agent setting unit notifies all terminals on the home link of the new home agent information **(agent advertisement messages are transmitted (multicast or**

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broadcasted) periodically by agent advertisement transmission circuit see ¶[0020]).

17. Regarding claim 10, Kumaki teaches the home gateway device according to claim 8,

wherein said interface setting unit further acquires information concerning a mobile router function stored in the mobile terminal, and wherein when the mobile terminal performs a mobile router operation, said home agent setting unit executes a setting corresponding to the mobile router in said home agent processing unit **(mobile node includes a control unit, the storage circuit 168 for storing various kinds of data including location information data and wireless communication circuit for wireless communication with access point 150 see ¶[0014]).**

18. Regarding claim 11, Kumaki teaches a mobile terminal, comprising: a mobile IP processing unit supporting

a mobile IP protocol **(mobile IP allows the mobile terminal to communicate even when it has moved to a network other than the predetermined network see ¶[0005])** and receiving a verification message for verifying the existence of the mobile terminal connected on a link **(from the location registration request message to verify existence of mobile terminal with a IP “The location registration request message includes: a communication header; an address of ISP 1200 as a destination address; an IP address of mobile node 160 as a source address; and an address of home gateway 110 or foreign router 300 that the mobile node received” see ¶[0080]);**

a home agent information response unit generating a response message in which stored home agent information is written, upon receipt of notification of receipt of the verification message from said mobile IP processing unit (**upon receipt of this agent advertisement message, mobile node 160 compares the home agent address stored in storage unit 168 of mobile node 160 with the address included in the received agent advertisement message to determine whether it is located on its home network or on a foreign network see ¶[0018]),**

wherein said mobile IP processing unit transmits the response message to the transmission source device which transmitted the verification message (**repose back to the transmission device by send location registration request “Mobile node 160 detects that the address of foreign router 300 included in the received agent advertisement message is different from the home agent address in the location information data stored in storage circuit 168. Mobile node 160 thus sends a location registration request message to ISP 1200” see ¶[0082]).**

19. Regarding claim 12, Kumaki teaches the mobile terminal according to claim 11, wherein said mobile IP processing unit further transmits a response message in which the state of its mobile router processing is written (**response to the agent advertisement message “Mobile node 160 sends this location registration request message in response to the agent advertisement message transmitted by agent advertisement transmission circuit 124” see ¶[0011]).**

20. Regarding claim 14, Kumaki teaches the mobile terminal according to claim 12, wherein said mobile IP processing unit transmits the response message only when the

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mobile terminal is connected to a home agent (mobile node in the own network able to transmit response back to the agent advertisement "Mobile node 160 sends this location registration request message in response to the agent advertisement message transmitted by agent advertisement transmission circuit 124" see ¶[0011]).

21. Regarding claim 15, claim 15 is rejected for the same reason as claim 5.
22. Regarding claim 16, claim 16 is rejected for the same reason as claim 10.

Claim Rejections - 35 USC § 103

23. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

24. Claims 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura et al. (US 2002/0133595 A1) as applied to claim 12 above, and further in view of Leung (US 6,466,964 B1).

Kimura teaches a system communicating data with a mobile node includes a server and a plurality of networks connected to the server. The mobile IP allows the mobile terminal to communicate even when it has moved to a network other than the predetermined network, without a need to change its IP address identifying itself (see ¶[0005]). Kimura further teaches control unit that includes a routing circuit of home

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gateway by which data is forward via tunnel to foreign router of a foreign network on which the mobile node is now located (see ¶[0028]); an agent advertisement transmission circuit that transmits an agent advertisement message (see ¶[0012]).

Kimura does not explicitly disclose when said mobile IP processing unit does not support the mobile IP protocol, said home agent information response unit des not transmit the response message even if the mobile terminal receives the notification of receipt of the verification message from said mobile IP processing unit.

Leung teaches mobile IP processing unit does not support the mobile IP protocol, said home agent information response unit des not transmit the response message even if the mobile terminal receives the notification of receipt of the verification message from said mobile IP processing unit **(The node not support the mobile IP protocol wont obtain MAC address for the gateway “Since the node does not implement the mobile IP protocol, the node function without knowledge of the operation of the Foreign Agent or virtual agent scheme” col.14 lines 47-57).** Leung further provides the advantage of enabling a node that does not support Mobile IP to roam to various Foreign Agents so that it may receive packets sent to it by a corresponding node.

It would have been obvious to one of ordinary skill in the art, having the teachings of Kimura and Leung before them at the time the invention was made to modify the home communication network of Kimura to include non compatible mobile IP protocol not responding to MAC address of the gateway as taught by Leung.

One of ordinary skill in the art would have been motivated to make this modification in to provide unique protocol for the mobile communication network in view of Leung.

Conclusion

The following prior art made of record and not relied upon is cited to establish the level of skill in the applicant's art and those arts considered reasonably pertinent to applicant's disclosure. See **MPEP 707.05(c)**.

The following reference teaches execution of trial data.

US 6,430,698 B1 (Khalil et al.)
US 6,765,900 B2 (Peirce Jr. et al)
US 6,856,624 B2 (Magret)
US 6,954,790 B2 (Forslow)
US 2002/0080752 A1 (Johansson et al.)
US 2002/0191562 A1 (Kumaki et al.)

The examiner requests, in response to this Office action, support be shown for language added to any original claims on amendment and any new claims. That is, indicate support for newly added claim language by specifically pointing to page(s) and line no(s) in the specification and/or drawing figure(s). This will assist the examiner in prosecuting the application.


When responding to this office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present, in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections See 37 CFR 1.111(c).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guang Li whose telephone number is (571) 270-1897. The examiner can normally be reached on Monday-Friday 8:30AM-5:00PM(EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Pwu can be reached on (571) 272-6798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

7/20/07
Guang Li
Patent Examiner


JEFFREY PWU
SUPERVISORY PATENT EXAMINER